

[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 121, 125, 135, and 145

[Docket No. 28293; Notice No. 95-12A]

RIN 2120-AF71

Service Difficulty Reports

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Supplemental notice of proposed rulemaking (SNPRM).

**SUMMARY:** This document modifies a notice of proposed rulemaking (NPRM) published on August 14, 1995, that proposed revising the reporting requirements for air carrier certificate holders and certificated domestic and foreign repair stations concerning failures, malfunctions, and defects of aircraft, aircraft engines, systems, and components. The original proposed action was prompted by an internal Federal Aviation Administration (FAA) review of the effectiveness of the reporting system and by air carrier industry concern over the quality of the data being reported by air carriers. This SNPRM addresses the concerns raised by the commenters on the original proposal. The objective of this SNPRM is to update and improve the reporting system to effectively collect and disseminate

clear and concise safety information to the aviation industry.

**DATES:** Comments must be received on or before June 1, 1999.

**ADDRESSES:** Comments on this document should be delivered, in triplicate, to: Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket (AGC-200), Docket No. 28293, Room 915G, 800 Independence Avenue SW., Washington, DC 20591. Comments delivered must be marked Docket No. 28293. Comments also may be submitted electronically to the following Internet address: 9-NPRM-CMTS@faa.dot.gov. Comments may be examined in Room 915G weekdays, except Federal holidays, between 8:30 a.m. and 5 p.m.

**FOR FURTHER INFORMATION CONTACT:** Robert Corcoran, Maintenance Support Branch, AFS-640, Flight Standards Service, Federal Aviation Administration, P.O. Box 25082, Oklahoma City, OK 73125; telephone (405) 954-6508.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

This document modifies Notice No. 95-12 (60 FR 41992, August 14, 1995). Interested persons are invited to comment on this proposal by submitting such written data, views, or arguments as they may desire. Comments relating to the environmental, energy, federalism, or economic impact that

might result from adopting the proposals also are invited. Substantive comments should be accompanied by cost estimates. Comments should identify the regulatory docket or notice number and should be submitted in triplicate to the Rules Docket address specified above. All comments received on or before the specified closing date for comments will be considered by the Administrator before taking further rulemaking action. All comments received will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket. Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this document must include a preaddressed, stamped postcard on which the following statement is made: "Comments to Docket No. 28293." The postcard will be date stamped and returned to the commenter.

**Availability of NPRM**

Any person may obtain a copy of this document by submitting a request to the Federal Aviation Administration, Office of Rulemaking, Attn: ARM-1, 800 Independence Avenue SW., Washington, DC 20591, or by calling

(202) 267-9680. Communications must identify the notice number of this SNPRM.

Using a modem and suitable communications software, an electronic copy of this document may be downloaded from the FAA regulations section of the FedWorld electronic bulletin board service (telephone: (703) 321-3339) or the Government Printing Office's electronic bulletin board service (telephone: (202) 512-1661) or the FAA Aviation Rulemaking Advisory Committee bulletin board service (telephone: (800) 322-2722 or (202) 267-5948).

Internet users may reach the FAA's web page at <http://www.faa.gov/avr/arm/nprm/nprm.htm> or the Government Printing Office's web page at <http://www.access.gpo.gov/nara> for access to recently published rulemaking documents.

Any person may obtain a copy of this SNPRM by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Ave. SW., Washington, DC 20591, or by calling (202) 267-9680. Communications must identify the notice number or docket number of this SNPRM.

Persons interested in being placed on the mailing list for future NPRM's should request from the above office a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

## **Availability of the Joint Aircraft System Component (JASC) Code**

Copies of the JASC Code are available from the FAA's Regulatory Support Division (AFS-600) or on-line from the FAA regulations section of the FedWorld electronic bulletin board service (telephone: (703) 321-3339).

## **Background**

On August 14, 1995, the FAA issued an NPRM titled "Operational and Structural Difficulty Reports," Notice No. 95-12 (60 FR 41992). That document proposed to revise the reporting requirements for air carrier certificate holders and certificated domestic and foreign repair stations concerning failures, malfunctions, and defects of aircraft, aircraft engines, systems, and components.

The reports submitted by certificate holders and certificated repair stations, known as service difficulty reports (SDR's), provide the FAA with airworthiness statistical data necessary for planning, directing, controlling, and evaluating certain assigned safety-related programs. The reporting system provides FAA managers and inspectors with a means for monitoring the effectiveness of self-evaluation techniques being employed by certain segments of the civil aviation industry.

Currently, §§ 121.703 and 135.415 of Title 14, Code of Federal Regulations (14 CFR) require that holders of certificates issued under part 121 or part 135, respectively, submit reports on certain failures, malfunctions, or defects of specific systems and on all other failures, malfunctions, or defects that, in the opinion of the certificate holder, have endangered or may endanger the safe operation of an aircraft. Similarly, 14 CFR § 125.409 requires that part 125 certificate holders report the occurrence or detection of each failure, malfunction, or defect. In addition, 14 CFR §§ 145.63 and 145.79 contain provisions for certificated domestic and foreign repair stations, respectively, to report to the FAA serious defects in, or other recurring unairworthy conditions of, an aircraft, powerplant, propeller, or component. Air carrier certificate holders and certificated repair stations must submit to the FAA the reports described above. In accordance with the FAA Flight Standards' Service Difficulty Program, set forth in FAA Order No. 8010.2, the information is reviewed and evaluated by the assigned Principal Maintenance Inspector (PMI) and mailed to the FAA's Mike Monroney Aeronautical Center in Oklahoma City, Oklahoma, for input into the Service Difficulty Reporting Subsystem (SDRS). The report data are entered into the SDRS and compiled to generate a weekly

summary distributed to aircraft manufacturers, air carriers, repair stations, members of the general aviation community, and various offices of the FAA. Additional review and evaluation of the data are accomplished at the Aeronautical Center to identify trends or significant reports, and the appropriate FAA office is notified if trends or significant safety items are noted.

Sections 121.705 and 135.417 contain provisions for submitting a summary report to the FAA on known or suspected mechanical difficulties or malfunctions that interrupt a flight or cause unscheduled aircraft changes, stops, or diversions en route that are not required to be reported under § 121.703 or § 135.415, respectively. Section 121.705 also requires a summary report containing information on the number of aircraft engines removed prematurely because of a malfunction, failure, or defect and the number of propeller featherings that occur in flight for other than training purposes, demonstrations, or flight checks. Section 135.417 requires summary reports on the number of propeller featherings that occur in flight for purposes other than training, demonstrations, or flight checks.

The comment period for Notice No. 95-12 closed on November 13, 1995. Comments on the proposed rule addressing numerous issues were received from individuals, part 121 and part 135 certificate holders, aviation consulting firms,

industry associations, manufacturers, and labor organizations. The FAA has reviewed the comments and the changes recommended by the commenters and has made substantive changes to the proposed rule based on the comments received. Accordingly, the FAA is issuing this supplemental notice to give all interested parties an opportunity to comment on the modified proposed rule.

#### **Discussion of Comments and Modifications to the Proposal**

This preamble discussion addresses the comments received in response to Notice No. 95-12 and describes only the modifications to that proposal. However, for the convenience of the public, the text of the proposed rule is reprinted in its entirety.

#### 14 CFR Part 127

The final rule for 14 CFR part 119, "Commuter Operations and General Certification and Operations Requirements," was published on December 20, 1995 (60 FR 65832). That final rule removed part 127, "Certification and Operations of Scheduled Air Carriers with Helicopters." Therefore, the proposed revisions to part 127 are no longer appropriate, and all references to part 127 have been removed from the proposal.

#### Section Headings



Several commenters state that the name of the proposed section headings should be changed. They state that because "Service difficulty report" is the generally recognized term for the required reports, it should be used for the section headings, instead of "Operational difficulty reports" or "Structural difficulty reports," as previously proposed.

The FAA agrees. Therefore, the headings of proposed §§ 121.703, 125.409, and 135.415 have been changed from "Operational difficulty reports" to "Service difficulty reports (operational)." The headings of proposed §§ 121.704, 125.410, and 135.416 have been changed from "Structural difficulty reports" to "Service difficulty reports (structural)."

#### Airworthiness Directives and Service Bulletins

The FAA received six comments addressing the continued submission of reports following the issuance of an airworthiness directive (AD) or service bulletin (SB). These commenters express their disappointment that a provision that would have discontinued this practice was removed from the draft NPRM presented to the FAA by the Aviation Rulemaking Advisory Committee.

Several commenters state that AD's or SB's are often issued to address a deficiency identified through the SDR program. These commenters contend that because these AD's or SB's provide a corrective action, subsequent

reporting is not necessary. Commenters indicate that the continued reporting of information after the issuance of an AD only fills the SDR data base with unneeded information.

The FAA disagrees. In theory, after the issuance of an AD to address a specific problem, continued service difficulties should not occur if the prescribed correction was developed and implemented properly. If the FAA continues to receive SDR's for a particular problem after an AD has been issued and incorporated, it could indicate that the AD did not correct the original deficiency and that more work is necessary to ensure appropriate corrective action. The FAA then could revise an AD or issue subsequent AD's to address continued service difficulties.

Several other commenters contend that the proposed reporting for certain discrepancies combined with the reporting requirements for certain AD's constitutes dual reporting. These commenters state that certain AD's addressing aging aircraft issues prescribe the use of supplemental inspection documents and corrosion prevention and control programs and currently require reports of certain defects. As a result, requiring similar reports under the SDR program is unnecessary.

The FAA disagrees. The AD reporting requirements, while containing some information common to the SDRS, usually request information that is different from the type

of information collected for input into the SDRS. Also, the reported AD information is used for reasons other than the analysis function of the SDRS. The aging aircraft information reported by certificate holders is submitted to the appropriate FAA aircraft certification office to determine the extent of aircraft deterioration because of age and to monitor the effectiveness of the supplemental inspection documents and corrosion prevention and control programs. Information submitted to the SDRS is used for the identification of recurring service problems.

#### The Proposed SDR and ODR Forms

The FAA received six comments regarding the proposed structural difficulty report and operation difficulty report forms, which were published with Notice No. 95-12 in the Federal Register. These forms were examples of the proposed forms that a certificate holder would be permitted to use if it chose to use a method other than electronically submitting the required reports. Unfortunately, commenters were given the impression that the forms would be the only acceptable method of report submission. Additionally, the use of two forms may have left commenters with the impression that two data bases were under development in which data from the forms would be entered. However, this is not the case.

Based on these concerns, the FAA has consolidated the proposed forms into one form titled "Service Difficulty Report." The proposed form would not be the only acceptable method of providing the report information. As stated in the proposed rule, a certificate holder would be permitted to submit the required information in an electronic or other form acceptable to the Administrator. However, as described later in the discussion of the proposed changes to §§ 121.703(e) and 121.704(d), the proposal would require part 121 certificate holders to submit the information electronically beginning one year after the effective date of a final rule. After that date no other format would be acceptable for submission of SDR's under part 121.

One commenter believes that the existing data base would be deleted and replaced by information collected after the effective date of the rule. This is not the case. The existing data base will remain available for research and use by industry, and future information collected, as proposed, would be added to the existing data base.

### FAA Form 337

Several commenters state that the discrepancies required to be reported by proposed §§ 121.703(a), 125.409(a), and 135.415(a) would likely result in the accomplishment of a major repair for corrective action. They state that the subsequent submission of FAA Form 337, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance), in addition to an SDR, constitutes a dual reporting requirement.

The FAA disagrees. FAA Form 337 serves two purposes: one is to provide an owner or operator with a record of a major repair or alteration indicating details and approval; the other is to provide the FAA with a copy of the form for inclusion in an aircraft's permanent record maintained by the FAA. In general, if the submitted FAA Form 337 uses previously approved data, it is forwarded by the Flight Standards District Office (FSDO) to the Aircraft Registration Branch in Oklahoma City, Oklahoma. However, if the data used have not been previously approved, the FSDO reviews the data to ensure compliance with applicable regulations and conformity with accepted industry practices. Upon favorable review, data approval is indicated by entering an appropriate statement on the form, and the form is returned to the applicant. This individual then

completes the form and provides the completed copies to the owner or operator and the FSDO.

Because the information submitted on an FAA Form 337 and the information provided in an SDR vary considerably, the FAA has determined that these reports do not constitute a duplicate reporting requirement. For example, when submitting an SDR under the proposed rules, the required information would include the stage of flight operation or ground operation during which the discrepancy was discovered; the nature of the failure, malfunction, or defect; aircraft total time and cycles; and other information necessary for a more complete analysis of the cause of the failure, malfunction, or defect, including available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection. None of this information is requested or required on FAA Form 337. Furthermore, the FAA contends that the discrepancies described by proposed §§ 121.703(a), 125.409(a), and 135.415(a) may not always result in the accomplishment of a major repair, and that submission of either an FAA Form 337 or an SDR will not always require the submission of the other form.

Sections 121.703(a)(2), 121.703(a)(4), 125.409(a)(2), 125.409(a)(4), 135.415(a)(2), and 135.415(a)(4)

The FAA received three comments regarding the submission of reports concerning any false fire or smoke warnings that require the use of emergency procedures. One commenter states that the phrase "use of emergency procedures" could be misinterpreted. This commenter states that the phrase could mean anything from reference to the abnormal procedures checklist to the declaration of an emergency to air traffic control. Another commenter contends that all false fire or smoke warnings should be reported, whether or not emergency action is taken. The third commenter questions whether the rule should require the reporting of indications that occurred only during revenue service and not during maintenance checks.

To clarify what information must be reported, the FAA has removed the phrase "that require the use of emergency procedures" from these sections of the proposal. Similar revisions have been made to §§ 121.703(a)(4), 125.409(a)(4), and 135.415(a)(4). The FAA also has revised the remaining language in paragraph (a)(2) of each section to read "any false warning of fire or smoke." In addition, proposed §§ 121.703(e)(5), 125.409(e)(5), and 135.415(e)(5) are revised to clarify the requirement that failures, malfunctions, or defects occurring during flight operations and ground operations must be reported.

Sections 121.703(a)(5), 125.409(a)(5), and 135.415(a)(5)

The FAA received two comments regarding the reporting of an engine flameout or shutdown. Each of these commenters states that an engine flameout during ground operations or taxi should not be a reportable item. One commenter states that an engine flameout should be reportable only if it occurs after the initiation of the takeoff roll.

The FAA disagrees. The FAA contends that an engine flameout or uncommanded engine shutdown is not a normal occurrence regardless of when it occurs. Such incidents could be an indication of a system malfunction or fault. The proposed rule language would require the reporting of an engine flameout or shutdown during ground or flight operations as previously proposed. The FAA notes, however, the proposed rule would require the reporting of an engine flameout or shutdown only if it is the result of a failure, malfunction, or defect. Reports of intentional engine shutdowns such as those that occur during flightcrew training, test flights, or while taxiing to reduce fuel consumption would not be required.

Sections 121.703(a)(7), 125.409(a)(7), and 135.415(a)(7)

One comment was received regarding the dumping of fuel by aircraft in flight. The commenter states that he is familiar with several events during which aircraft dumped significant amounts of fuel in preparation for a landing following an engine malfunction that occurred shortly after



takeoff. The commenter states that fuel dumping has received little attention from environmental groups, but reports of fuel dumping should be required by the Federal Aviation Regulations.

While the comment may have merit, reporting of fuel dumping with regard to environmental effects is beyond the scope of this rulemaking action, and therefore is not addressed in this proposal.

During preparation of this document, the FAA determined that any failure, malfunction, or defect concerning a fuel system or fuel dumping system that affects fuel flow or causes hazardous leakage should be reported regardless of whether it occurs during ground or flight operations. Therefore, the FAA has revised the proposed rule by removing the language that limited the reporting of such service difficulties to those that occur during flight.

Sections 121.703(a)(8), 125.409(a)(8), and 135.415(a)(8)

Two commenters express confusion about the proposed reporting requirements for landing gear failures, malfunctions, or defects. These commenters indicate that the proposed rule language could require a report whether a landing gear defect "resulted" in an extension or retraction, or "became apparent" during a landing gear extension or retraction that was selected by the pilot. The

commenters contend that the rule language is not consistent with the explanation in the preamble.

The FAA intends that all failures, malfunctions, or defects associated with landing gear extension or retraction during flight be reported. Therefore, the proposed rule language remains unchanged.

The final rule for part 119 revised current § 121.703(a)(12) to require the reporting of an "unwanted" landing gear extension or retraction, or an "unwanted" opening or closing of landing gear doors during flight. The use of the term "unwanted" is superfluous because this section only requires the reporting of failures, malfunctions, or defects associated with landing gear extension or retraction. Therefore, the FAA proposes to remove the term "unwanted" from § 121.703(a)(8). Similar changes are proposed in §§ 125.409(a)(8) and 135.415(a)(8). Sections 121.703(a)(9), 125.409(a)(9), and 135.415(a)(9)

The FAA received one comment regarding the reporting of a failure, malfunction, or defect concerning any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground. The commenter states that the subsequent statement that excludes defects deferrable according to the Minimum Equipment List (MEL), as provided for in 14 CFR § 91.213, is confusing. The commenter states that the MEL item may have

induced the problem and that excluding a report of such a failure would prevent the collection of information that may be beneficial for analysis. Another comment concerning the MEL states that if MEL discrepancies are reported, the adequacy of the MEL can be assessed objectively.

The FAA's intent was to avoid having discrepancies such as hydraulic leaks and inoperative anti-skid systems reported to the SDRS because, under certain circumstances, these discrepancies may not be critical to the continued safe operation of the braking system. However, the FAA has reconsidered this proposal and agrees with the commenters that such information, regardless of deferability in accordance with the MEL, should be reported. Therefore, the FAA has revised the proposal accordingly.

Sections 121.703(a)(10), 125.409(a)(10), and 135.415(a)(10)

The FAA received six comments that address the reporting of failures, malfunctions, or defects that result in rejected takeoffs (RTO's) after initiation of the takeoff roll or emergency actions during flight. Two of these commenters state that the proposed rule language should be amended to include "when that defect or malfunction has endangered or may endanger the safe operation of the aircraft." One commenter recommends only reporting those RTO's that occur above a certain speed and recommends the establishment of a standard  $V_1$  percentage above which RTO's

would be reported. Another commenter states that reports of RTO's should be limited to those that involve a "significant" safety problem. One commenter questions the need for reporting when the RTO's occur during maintenance activities, such as test flights.

The FAA has determined that the rule, as proposed, would result in the collection of useful data on all RTO's. The FAA contends that attempting to define terms such as "significant," as suggested, is not feasible because of the subjective nature of the term. Because one commenter states that the use of the term "emergency" is ambiguous, the FAA has added for clarification the phrase "as defined by the Aircraft Flight Manual or Pilot's Operating Handbook" to the proposed rule language. The FAA notes that the collected data would not include RTO's associated with animals or debris on runways because such events would not be the result of an aircraft component or system failure, malfunction, or defect.

Sections 121.703(a)(11), 125.409(a)(11), and 135.415(a)(11)

The FAA received five comments concerning the reporting of failures, malfunctions, or defects associated with emergency evacuation systems or components. These commenters similarly state that reports on the failure of emergency lighting or the degradation of emergency egress lighting batteries should be excluded from the reporting

requirements. The commenters state that individual component failures that do not affect the operation of the emergency evacuation system should not be reported.

The FAA disagrees. The current rules pertaining to the reporting of the described failures provide the FAA with an indication of evacuation system reliability, as well as the reliability of components within evacuation systems. The FAA contends that if an evacuation slide has an on-aircraft life of 12 months, for example, the components within that slide should last 12 months. Failure of a slide's emergency egress lighting batteries is an indication of their reliability and may indicate that a change in maintenance procedures or life limits is necessary. The proposed rule language has been revised to require reporting of all failures, malfunctions, or defects of an emergency evacuation system or component including those deferred in accordance with a MEL.

Sections 121.703(a)(12), 125.409(a)(12), and 135.415(a)(12)

In this supplemental notice, the FAA proposes to add a new reporting requirement for failures, malfunctions, or defects that are not reported under the current regulations. Reports would be required for failures, malfunctions, or defects of autothrottle, autoflight, or flight control systems or components found to be defective or that fail to perform their intended function. The reporting requirements

would include scenarios in which the primary mode of a system fails, and a secondary system immediately and appropriately assumes operation. Under such a scenario, the failure of the primary mode would be reportable.

There have been two air carrier accidents in the United States that immediately followed unexplained airplane rolls. The FAA is aware of other roll, pitch, or yaw events that have occurred, although reports are not always made to the SDRS. The FAA notes that some of these events have required full deflection of the flight controls to regain control of the aircraft. Other events have occurred involving ice in autopilot actuators, which prevented the actuators from disengaging when the autopilot was disengaged.

Although such events could be reported under current § 121.703(c) or § 135.415(c), the SDR data base does not indicate that such reports are being made. Therefore, the FAA has added a proposed requirement to report failures, malfunctions, or defects of autothrottle, autoflight, or flight control systems or components in proposed §§ 121.703(a)(12), 125.409(a)(12), and 135.415(a)(12).

Sections 121.703(c), 121.704(b), 125.409(c), 125.410(b), 135.415(c), and 135.416(b)

In this supplemental notice, the FAA proposes to revise the language in §§ 121.703(c), 125.409(c), and 135.415(c).

The proposed rule states that each certificate holder shall report any failure, malfunction, or defect in an aircraft system, component, or powerplant that occurs or is detected at any time if that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft. The phrase "in its opinion" would no longer be included in the rule language. The proposed provision would provide the FAA with additional information concerning failures, malfunctions, or defects, not otherwise specified in the proposed rule, involving modern, complex aircraft. Similar revisions would be included in proposed §§ 121.704(b), 125.410(b), and 135.416(b).

Sections 121.703(d), 121.704(c), 125.409(d), 125.410(c), 135.415(d), and 135.416(c)

The FAA received six comments that address the provisions of proposed §§ 121.703(d), 125.409(d), and 135.415(d). These comments address the submission of reports directly to a centralized collection point rather than the certificate holder's FSDO, the 72-hour reporting requirement, the availability of reports for examination by the FSDO, and the perception that the proposed rule prescribes dual reporting requirements. One commenter asserts that the requirements for reports to be reviewed by the FSDO before they are entered into the SDR database should be retained.

The FAA disagrees. The current requirement for FSDO review before forwarding the report to Oklahoma City allows the FSDO to review the reports for completion and accuracy and assess certificate holder trends. Because the proposed reporting requirements are more precise than the existing rules, an accuracy review of the report by the FSDO should no longer be required. Current routing requirements create a delay of approximately 4 to 5 weeks from the date of occurrence to the date of data entry. The FAA contends that the continued FSDO review would only delay the timely entry of data into the SDRS.

Because of concerns raised by the commenters about making the reports available for FSDO review, the duration of such availability, and the perception that this constitutes a dual reporting requirement, the FAA has added a statement to the proposed rule that the reports be made available for review for 30 days. The FAA contends that certificate holders usually retain SDR's indefinitely; therefore, a 30-day retention requirement should place minimal burden on the certificate holders. Certificate holders would not be required to submit a copy of the report to their PMI, but would be required to permit the inspector to review any reports submitted within the previous 30 days.

FAA inspectors have expressed concern that their lack of review would "take them out of the loop" and would not



permit them to remain aware of difficulties experienced by the certificate holder; however, inspectors have access to the FAA's SDR data base and the reports are currently available for review in the SDR Summary (provided by AFS-600) on computer services such as FedWorld and the Integrated Safety Information System. The FAA will use inspector guidance to emphasize that inspectors should use available computer systems to review SDR data. However, as previously noted, certificate holders would be required to permit inspectors to review any reports submitted within the previous 30 days.

The FAA notes that, with regard to the provision for certificate holders to make reports available to the FSDO for review as proposed in the NPRM, the final rule for part 119 removed the references to "Flight Standards District Office" in § 121.703. Specifically, the FAA revised the report submission requirements of § 121.703(d) by replacing "FAA Flight Standards District Office charged with the overall inspection of the certificate holder" with "certificate-holding district office." In addition, § 119.3 defines the certificate-holding district office as the FSDO that has responsibility for administering the certificate and is charged with the overall inspection of the certificate holder's operations. Therefore, to maintain consistency, proposed §§ 121.703(d), 121.704(c), 125.409(d),

125.410(c), 135.415(d), and 135.416(c) have been revised to reflect this change.

Four commenters mention the 72-hour reporting requirement. Two of these commenters state that the 72-hour reporting requirement is inappropriate, and at times is impossible to meet for aircraft undergoing heavy maintenance. The commenters recommend revising the current rule so that, under such circumstances, reports would be required 72 hours after the aircraft is returned to service. One commenter states that the 72-hour reporting requirement should only be required for those discrepancies that could cause the "sudden loss of an aircraft." Another commenter states that there is no justification for the 72-hour reporting requirement.

The FAA has reviewed the comments and determined that a 96-hour requirement for the submission of reports is more appropriate than the current 72-hour reporting requirement. However, the FAA disagrees with the comment that for aircraft undergoing heavy maintenance, the 96-hour reporting requirement should begin when the aircraft is approved for return to service, because there may be a substantial period of time between discovery of the failure, malfunction, or defect during a heavy maintenance check and the return of the aircraft to service. In addition, the FAA contends that the increase from 72 hours to 96 hours for reporting would

allow ample time for certificate holders to gather the necessary information to submit a detailed report and reduce supplemental reporting.

One commenter notes that the text of proposed § 135.415(d) states that reports must be submitted to the "location where the data base is maintained" rather than a centralized collection point, as stated in the similar sections of the proposal. The FAA notes that this was an inadvertent error, and the proposed rule language has been revised to read "to a centralized collection point" for consistency with similar proposed sections.

For the reasons discussed above proposed §§ 121.704(c), 125.410(c), and 135.416(c) also have been revised to increase the reporting requirement to 96 hours and require that SDR's be made available for 30 days for examination by the certificate holding district office.

Sections 121.703(e), 125.409(e), and 135.415(e)

The FAA received two comments concerning the introductory text of §§ 121.703(e), 125.409(e), and 135.415(e). One commenter indicates the perception that the proposed rule language would require both an electronic copy and a paper copy of any reports submitted. That commenter also states that reporting electronically should be optional. In addition, that commenter states that the word "should" is not appropriate language for a rule.

The other commenter expresses concern that the rule as proposed would not require the submission of information that is necessary to conduct meaningful analysis because items contained in previously proposed paragraphs (e)(7) through (e)(9) would be optional information that certificate holders could but would not be required to submit.

The FAA has revised the proposed rule language to clarify that a report must be submitted electronically or in an other form acceptable to the Administrator. It was not the FAA's intention to require the submission of reports in both electronic and paper form. However, the FAA proposes revising § 121.703(e) to provide that 1 year after the effective date of the rule, part 121 certificate holders would be required to submit reports in an electronic form. This proposed revision is consistent with Department of Transportation (DOT) requirements, contained in 14 CFR § 234.5 and section 19-1 of 14 CFR part 241, for the electronic submission of certain reports and data, and should impose little additional burden on part 121 certificate holders. Part 125 and part 135 certificate holders would retain the option of submitting the required information in electronic or paper form. Part 145 certificate holders also would retain this option unless the repair facility submits the information on behalf of a

part 121 certificate holder in accordance with proposed §§ 121.703(g) and 121.704(f).

The proposed rule also has been reworded to require the submission of all of the information listed in paragraph (e). The increase from 72 hours to 96 hours for the submission of the reports should permit the timely collection of the information previously proposed as optional in paragraphs (e)(7) through (e)(9). The increase in the amount of time allowed for submission of reports should reduce the number of supplemental reports submitted to update the SDR data base, a concern that was expressed by several other commenters.

Sections 121.703(e)(1), 125.409(e)(1), and 135.415(e)(1)

As previously proposed, these sections required that an SDR include the manufacturer, the model, the serial number, and the registration number of the aircraft. When the service difficulty involves an engine or propeller, the manufacturer, the model, and the serial number of those items are necessary for accurate trend analysis. Therefore, these sections have been revised to require the reporting of the manufacturer, the model, and the serial number of the aircraft, engine, or propeller. The requirement to provide the registration number of the aircraft is now contained in proposed §§ 121.703(e)(2), 125.409(e)(2), and 135.415(e)(2).

Sections 121.703(e)(3), 125.409(e)(3), and 135.415(e)(3)

The FAA has revised the proposed rule language in these sections to require that an SDR include the operator designator rather than the name of the operator. Each certificate holder is assigned a certificate number. The operator designator is the first four alphanumeric characters of the certificate number. This revision is necessary to avoid potential confusion when operators have similar names (for example, American Airlines, Inc.; American Trans Air, Inc.; and America West Airlines, Inc.).

Proposed §§ 121.704(d)(2), 125.410(d)(2), and 135.416(d)(2) also would require that an SDR submitted under these sections include an operator designator.

Sections 121.703(e)(4), 125.409(e)(4), and 135.415(e)(4)

Two commenters address the content of previously proposed §§ 121.703(e)(3), 125.409(e)(3), and 135.415(e)(3) and indicate that providing all the information required by those paragraphs may not be possible. One commenter states that his operation does not use flight numbers. The other commenter states that a flight number may not be appropriate if the defect was discovered during maintenance. This commenter also questions what station information would be appropriate if a discrepancy occurred during flight.

After further review, the FAA has determined that the proposed requirement for submission of the flight number and the station where the failure, malfunction, or defect

was detected is not necessary. Proposed §§ 121.703(e)(4), 125.409(e)(4), and 135.415(e)(4) would now require only the date on which the failure, malfunction, or defect was discovered. The requirement to report the stage of operation during which the service difficulty occurred (previously included in proposed §§ 121.703(e)(3), 125.409(e)(3), and 135.415(e)(3)) is now contained in §§ 121.703(e)(5), 125.409(e)(5), and 135.415(e)(5) as discussed in the following paragraph.

Sections 121.703(e)(5), 125.409(e)(5), and 135.415(e)(5)

The FAA has clarified the requirement to report the stage of operation during which the service difficulty occurred by revising it to read "the stage of flight or ground operation during which the failure, malfunction, or defect was discovered." These operations may include, for example, ground handling, taxi, takeoff, climb, cruise, descent, approach, landing, or maintenance inspections. The intent of the proposal is to require reports for all of the listed failures, malfunctions, or defects, regardless of when they are detected. This clarification also addresses comments on §§ 121.703(a), 125.409(a), and 135.415(a) about whether reports would be required only for defects detected during flight or if defects occurring during ground operations also would be reportable.

Sections 121.703(e)(7), 121.704(d)(6), 125.409(e)(7), 125.410(d)(6), 135.415(e)(7), and 135.416(d)(6)

The FAA received seven comments concerning the inclusion of the applicable FAA-modified Air Transport Association Specification 100 (ATA Code) in the reporting requirements. The commenters cite various reasons for their lack of support for this requirement. Commenters express concern that the use of the FAA-modified system would become required throughout their operations, resulting in tremendous expense for manual revisions and computer system modifications. They also express concern that required use of the proposed codes would result in additional review requirements and that the modified codes add no value or safety benefit to the current system. Commenters also state that not all manufacturers prepare their manuals in accordance with the ATA Code system and that requiring the use of the codes creates the opportunity for inconsistent compliance.

To address these concerns, the FAA has modified the proposed rule, which would require use of the applicable JASC Code. In May 1991, the FAA introduced the coding scheme used in the JASC Code for the technical classification of SDR's. This code, which was developed by the Safety Data Analysis Section of the FAA's Flight Standards Service with input from Transport Canada, is a



modified version of the ATA Code. The JASC Code has been adopted by the Civil Aviation Authority of Australia and by Transport Canada. The current ATA Code system basically is consistent with the JASC Code system; therefore, users of the ATA Code should not need to significantly revise their procedures to adopt the JASC Code. The Safety Data Analysis Section often changes reporters' incorrect codes to the appropriate JASC Code before data are entered in the SDRS to ensure that correct data are captured during queries. This procedure ensures proper subsequent data analysis.

Use of the JASC Code provides standardization between users and nonusers of the ATA Code, just as the ATA Code provides consistency for its users. Copies of the JASC Code are available from the FAA's Regulatory Support Division (AFS-600) or on-line via the FedWorld system (see "Availability of JASC Code").

Sections 121.703(e)(8), 121.703(d)(7), 125.409(e)(8), 125.410(d)(7), 135.415(e)(8), and 135.416(d)(7)

The FAA received four comments concerning the proposed requirement for submitting aircraft total time and total cycles. The commenters state that if the failure, malfunction, or defect involves a component, the aircraft total time and total cycles may not be readily available, especially if an outside vendor is involved in providing the corrective action. In the case of a component defect, the

aircraft total time and total cycles may be irrelevant and too time consuming to determine. Two commenters state that total cycles may not be available for certain certificate holders who use aircraft for which cycle recording is not required. These commenters question whether the proposed rule would require those certificate holders to begin tracking aircraft total cycles.

The FAA agrees with these comments and has revised the proposed rule accordingly. Because tracking the accumulation of aircraft cycles may not be a requirement for certain type designs, this information would only be required, if applicable. Proposed §§ 121.703(e)(8), 121.704(d)(7), 125.409(e)(8), 125.410(d)(7), 135.415(e)(8), and 135.416(d)(7) have been modified accordingly. Also, the FAA has made the total time and total cycle information requirement more specific in proposed §§ 121.703(e)(8), 121.409(e)(8), and 135.415(e)(8) so that information on the affected part would be required, rather than only aircraft total time and total cycles.

Sections 121.703(e)(9), 125.409(e)(9), and 135.415(e)(9)

One commenter states that requiring the identification of the engine or component serial number is not justifiable when it is not required to report the engine or component manufacturer and part number.

The FAA agrees and has added the requirement for the submission of the manufacturer, manufacturer part number, and part name of the malfunctioning item to the proposed rule. In addition, the location of the malfunctioning item would be required.

The FAA also has revised these sections to require that the information be provided for the component that failed, malfunctioned, or was defective, if applicable. In some instances, it may be possible to further identify the specific part, within that component, that failed, malfunctioned, or was defective. For example, when a generator fails, during disassembly it may be discovered that the failure was caused by a problem with a bearing. In such cases, the FAA has determined that it also is necessary for accurate trend analysis that an SDR contain the manufacturer, manufacturer part number, part name, serial number, and location of that part (the bearing, in this example). Therefore, proposed §§ 121.703(e)(10), 125.409(e)(10), and 135.415(e)(10) have been added to require the reporting of this information. The FAA notes that in some cases the component causing the service difficulty may not contain any parts (for example, a cracked windscreen). In those cases, no information would be required under proposed §§ 121.703(e)(10), 125.409(e)(10), and 135.415(e)(10).

Sections 121.703(e)(11), 125.409(e)(11), and 135.415(e)(11)

During the review of comments and preparation of this document, the FAA determined that the proposed rule language should be clarified by substituting the phrase "precautionary or emergency action taken" for "emergency procedure effected." This revision is necessary because certain indications may require an aircraft to return to the gate for precautionary reasons (for example, an unusual or abnormal fuel quantity indication while taxiing for takeoff). Such events may not require the use of emergency procedures; therefore, certain certificate holders may not report the information under the existing or previously proposed rules. However, to ensure that all appropriate information is collected, the FAA wants reports of the precautionary or emergency action taken.

Sections 121.703(e)(13), 121.704(d)(9), 125.409(e)(13), 125.410(d)(9), 135.415(e)(13), and 135.416(d)(9)

The FAA has revised the proposed rule language by adding a requirement that an SDR include a unique control number for an occurrence, in a form acceptable to the Administrator. The following describes an acceptable form for the unique control number. The control number would begin with the first four alphanumeric characters of the submitter's certificate number. The next four numbers would be used to designate the calendar year in which the SDR is

submitted. The remaining numbers would be generated by the submitter. For example, for the unique control number ABCD199700001, "ABCD" would denote the first four characters of the submitter's certificate number, "1997" would indicate that the SDR was filed in 1997, and "0000001" would indicate that the SDR relates to the first occurrence reported by the submitter for that year. When a supplemental SDR is submitted, the submitter would use the unique control number from the original SDR, add the new or modified information to the original SDR, and submit the supplemental report.

The use of the unique control number will reduce the number of duplicate reports for the same occurrence in the SDR data base and provide a more simplified method for the FAA and industry to reference an SDR. Currently, FAA resources are expended to relate supplemental information to the original report.

Proposed §§ 121.704(d)(9), 125.410(d)(9), and 135.416(d)(9) also would require that an SDR submitted under these sections include a unique control number for the occurrence.

Sections 121.703(f), 125.409(f), and 135.415(f)

Two commenters state that the proposed rule language pertaining to reporting under 14 CFR § 21.3 provides manufacturers with a loophole to avoid SDR reporting,

thereby preventing a meaningful comparison to service difficulties.

The FAA disagrees. Sections 121.703(f), 125.409(f), and 135.415(f) apply to the few operators who also happen to be the type certificate holder of the aircraft, aircraft engine, or propeller in which a failure, malfunction, or defect has been discovered. Other certificate holders would make a report as prescribed by the other provisions of the proposed rule. Although reports made under to § 21.3 and proposed §§ 121.703(a), 125.409(a), and 135.415(a) would contain common information, the FAA disagrees with the commenters' contention that the information should be compiled into a single data base for meaningful comparison. Comparison of the information may not result in useful data. Reports submitted under §§ 121.703(a), 125.409(a), and 135.415(a) identify problems on aircraft that are in service. Reports submitted under § 21.3 identify manufacturing deficiencies and are used by the appropriate FAA Aircraft Certification Office to address such deficiencies and correct them during subsequent manufacturing activity. The FAA contends that the information gathered through these separate reporting requirements should remain separate. The reporting requirements of § 21.3 may be reviewed in a separate rulemaking action in the future; however, such review

and potential revision is beyond the scope of this rulemaking activity.

Sections 121.703(g), 125.409(g), and 135.415(g)

Three commenters request clarification of the proposed provision which would permit a part 121, part 125, or part 135 certificate holder to assign the service difficulty reporting task to a certificated repair station. Two of these commenters indicate that without clear lines of responsibility, inconsistent reporting will result. These two commenters also recommend that reporting be the responsibility of the person returning the aircraft or other item to service. Another commenter questions whether the certificate holder would have to grant reporting authority in writing to the repair station and whether certificate holders would be required to maintain lists of repair stations to which they have granted such authority.

The FAA offers the following for clarification: The reporting responsibility ultimately lies with the certificate holder for the aircraft. However, a certificate holder could, in the contractual agreement for the maintenance activity made with a repair station, assign to the repair station the task of submitting the required reports. This assignment would permit the repair station to submit the reports as the repair station discovers discrepancies during maintenance of the operator's equipment

without repeatedly contacting the operator. If such an arrangement is made to meet the proposed requirements, the repair station would submit the data required by the proposed SDR requirements, although repair stations are not governed by part 121, part 125, or part 135. The FAA emphasizes that such arrangements are optional and that the details of such arrangements are contractual, not regulatory. The FAA also emphasizes that the responsibility for the submission of the reports would still remain with the certificate holder, and that the certificate holder would still be required to make the reports available for review for 30 days.

Sections 121.703(h) and (i), 121.704(g) and (h), 125.409(h) and (i), 125.410(g) and (h), 135.415(h) and (i), and 135.416(g) and (h)

During preparation of this supplemental notice, the FAA noted that the requirements prescribed by current §§ 121.703(g) and (h) and 135.415(g) and (h) were not retained in Notice No. 95-12. These sections address the withholding of incomplete reports and the submission of supplemental reports. Although the change from 72 hours to 96 hours for the submission of reports is intended to reduce the number of supplemental reports required, the intent was not to eliminate supplemental reporting. Under the proposal, supplemental reports would still be required for the submission of information that was not available at



the time the original report was submitted, as is required under the existing rules. Therefore, proposed §§ 121.703(h) and (i), 125.409(h) and (i), and 135.415(h) and (i), which address the submission of supplemental reports, have been added in this proposal. Equivalent requirements are contained in proposed §§ 121.704(g) and (h), 125.410(g) and (h), and 135.416(g) and (h).

In adding the proposed requirement for submission of supplemental reports, the FAA has modified the current language of §§ 121.703(h) and 135.415(h). The FAA intends that all additional information, from whatever source, be submitted in the supplemental reports, including information obtained from the manufacturer, the operator's internal maintenance organization, or a certificated repair station. The FAA has further modified the current language to require the certificate holder to reference the unique control number from the original report. As previously discussed, use of this number will ensure that the supplemental information is traceable to the original report.

Sections 121.704(a), 125.410(a), and 135.416(a)

The FAA received six comments concerning use of the terms "primary structure" (PS) and "principal structural element" (PSE) in the introductory text of proposed §§ 121.704(a), 125.410(a), and 135.416(a). These commenters express concern that not all manufacturers of aircraft

operated under parts 121, part 125, and part 135 identify portions of the airframe as a PS or a PSE. The commenters state that although in many cases the identification of a PS or a PSE is possible by evaluation of an item's function, this is not always the case. Two commenters note inconsistencies within paragraph (a) of each section.

The FAA agrees with the concerns of the commenters. Because of these concerns, the FAA has revised proposed §§ 121.704(a), 125.410(a), and 135.416(a). The revised sections would require each certificate holder to report the occurrence or detection of each failure or defect related to corrosion, cracks, or disbonding that requires replacement of the affected part, or that requires rework or blendout because the corrosion, cracks, or disbonding exceeds the manufacturer's established allowable damage limits. The revised sections also would require reports for cracks, fractures, or disbonding in a composite structure that the equipment manufacturer has designated as a PS or a PSE. This clarification would alleviate the requirement for submitting reports about cracked composite radomes, fairings, or lift spoilers, while ensuring that cracks in composite wing structures are reported.

The previously proposed requirement for the submission of information on failures or defects repaired in accordance with data approved by a Designated Engineering

Representative (DER) or other approved data not contained in the manufacturer's maintenance manual also has been revised. In addition to reports of other failures or defects, the revised proposal would require the submission of information on any failures or defects repaired in accordance with data not contained in the manufacturer's maintenance manual so that information on aircraft without prescribed allowable damage limits also would be reported.

Sections 121.704(d), 125.410(d), and 135.416(d)

The FAA received six comments regarding proposed §§ 121.704(d), 125.410(d), and 135.416(d). The majority of these comments were similar to comments on §§ 121.703(e), 125.409(e), and 135.415(e), described previously, regarding the reporting of optional information.

One commenter specifically addresses previously proposed paragraph (d)(7) of each section and states that the identification of a structural part should remain optional because many structural parts are several feet in length and the part number alone may not provide an adequate description of the damage location. The commenter notes that a part number may add no value when a detailed description of the damage location (including station, waterline, butt line) is provided.

The FAA agrees. Therefore, the FAA has not included the manufacturer's part number and serial number of the

defective item in the list of reportable items. The FAA notes that proposed §§ 121.704(d)(5), 125.410(d)(5), and 135.416(d)(5) would require the certificate holder to report the part name, part condition, and location of the failure or defect. The addition of a reporting requirement for the part name and part condition is necessary for accurate trend analysis.

The FAA also has added a requirement in proposed §§ 121.704(d)(4), 125.410(d)(4), and 135.416(d)(4) that an SDR include the stage of ground operation during which the failure or defect was discovered. Such operations may include scheduled and unscheduled maintenance or servicing of the aircraft. The FAA has deleted the previously proposed requirement to report the "nature of the failure or defect."

In addition, the FAA has revised the proposed rule to require the submission of all of the information listed in §§ 121.704(d), 125.410(d), and 135.416(d). The FAA has determined that this requirement is necessary to ensure that information such as corrosion classification and crack length is reported. The FAA notes that only those certificate holders who have a required corrosion prevention and control program are required to report corrosion classification information. The addition of proposed §§ 121.704(g) and (h), 125.410(g) and (h), and 135.416(g)

and (h) would permit the reporting of this information when it becomes available.

Consistent with the proposed revision to § 121.703(e), the FAA has revised § 121.704(d) to provide that 1 year after the effective date of the rule, part 121 certificate holders would be required to submit reports in an electronic form.

#### Sections 121.705 and 135.417

The FAA received three comments concerning § 135.417. Two of these comments address the proposal that would require reports following each interruption to a flight for any aircraft, rather than for just multiengine aircraft, as required by the existing rule. These commenters state that this change is significant and needs to be addressed.

The FAA agrees. The proposal would require reports for all such interruptions, regardless of whether they occurred in a single- or multiengine aircraft for operations conducted under part 135. The FAA contends that many aircraft use parts or engines that are in common use between part 121, part 125, or part 135 certificate holders (for example, the Cessna Caravan and the Beechcraft 1900, which both use the Pratt & Whitney PT-6 engine). Also, the FAA has added unscheduled engine removals caused by known or suspected mechanical difficulties to the list of items that would be required to be reported. This change will

facilitate the continued compilation of data for preparation of the FAA's Air Carrier Aircraft Utilization and Propulsion Reliability Report.

One commenter addresses the proposed change in § 135.417 for the submission of reports from the 10th day of the month following an interruption to the regular and prompt submission of reports, which would have made part 135 consistent with current § 121.705. The commenter contends that the phrase "regularly and promptly" is too vague.

The FAA agrees and has changed the language of proposed §§ 121.705 and 135.417 to require that reports be submitted by the 10th day of the month following the occurrence.

#### Sections 145.63 and 145.79

For consistency with the proposed requirements of part 121, part 125, and part 135, the FAA has revised these sections to require that reports of serious defects or recurring unairworthy conditions be submitted to a centralized collection point as specified by the Administrator. The FAA has revised the time period for reporting serious defects or unairworthy conditions from 72 hours to 96 hours for the same reason.

#### **Paperwork Reduction Act**

This proposal contains information collections that are subject to review by OMB under the Paperwork Reduction Act

of 1995 (Pub. L. 104-13). The title, description, and respondent description of the annual burden are shown below.

**Title:** Service Difficulty Reports.

**Description:** Under current regulations, certificate holders operating under parts 121, 125, and 135 and part 145 certificated domestic and foreign repair stations are required to report service difficulties to the FAA. The objective of the revised proposed rule is to update and improve the reporting system to effectively collect and disseminate clear and concise safety information to the aviation industry. This would be done through a series of changes that include:

- permitting part 121, 125, and 135 certificate holders to authorize a repair station to submit an SDR on their behalf;
- permitting the electronic submission of SDR data (certificate holders operating under part 121 would be required to report electronically 1 year after the effective date of a final rule);
- eliminating dual reporting from both air carriers and repair stations;
- reducing the Principal Maintenance Inspector's (PMI's) workload;

- requiring that each SDR include a unique control number for an occurrence; and
- adding some additional reporting requirements for part 121, 125, and 135 certificate holders on information that has not been collected before or had been collected through voluntary reporting.

**Description of Respondents:** Businesses or other for-profit organizations.

This proposal would constitute a recordkeeping burden for certificate holders operating under parts 121, 125, and 135, and part 145 certificated repair stations that currently must report service difficulties. The FAA notes that the current service difficulty reporting requirements were approved under OMB assigned Control Numbers 2120-0008, 2120-0085, 2120-0003, and 2120-0039.

The FAA expects that this proposal would affect 156 part 121 certificated air carriers, 2,940 part 125 and 135 certificated air carriers, and 4,599 part 145 certificated repair stations. The proposed rules, while imposing additional reporting and recordkeeping requirements on those operators, would have the following impacts on these businesses:



- allowing a repair station to file an SDR on behalf of a certificate holder operating under part 121, 125, or 135 (saving 385 hours annually); and
- require certificate holders to report certain additional service difficulties and include new information in the SDR (adding 1,725 hours annually for air carriers and 57.5 hours annually for repair stations).

Accordingly, the FAA estimates that these proposed rules increase the reporting and paperwork requirements for industry by 1,398 hours annually. The total annual reporting burden costs sums to \$31,464. These cost figures are based on estimates provided in the FAA's "Regulatory Analysis."

In addition, under the proposal, certificate holders operating under part 121 would be required to report SDR's electronically 1 year after the effective date of the rule. The FAA estimates that it would take approximately 1 hour for a certificate holder to program its computers to permit electronic submission of the report. In addition, it may be necessary for some certificate holders to install additional software to convert to an IBM-compatible system to run the necessary software. Total first year costs are expected to sum to \$7,719.

The proposed regulations would decrease paperwork for the Federal Government by reducing the workload for PMI's and SDR data entry employees as follows:

- allowing a repair station to file an SDR on behalf of a certificate holder operating under part 121, 125, or 135, hence, reducing dual reporting (saving 385 hours annually for data entry personnel);
- requiring certificate holders to submit these reports directly to Oklahoma City (saving as much as 3,083 hours annually for PMI's);
- requiring that an SDR include a unique control number for an occurrence (saving as much as 228 hours annually for data entry personnel); and
- require certificate holders to report certain additional service difficulties and include new information in the SDR (adding 863 hours annually for data entry personnel).

Accordingly, the FAA estimates that these proposed rules decrease the reporting and paperwork requirements for the government by 2,834 hours annually. The total annual reporting burden costs savings sums to \$18,164. These cost figures are based on estimates provided in the FAA's "Regulatory Analysis."

The agency solicits public comment on the information collection requirements to (1) evaluate whether the proposed

collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) enhance the quality, utility, and clarity of the information to be collected; and (4) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Individuals and organizations may submit comments on the information collection requirement by June 1, 1999, and should direct them to the address listed in the **ADDRESSES** section of this document.

Persons are not required to respond to a collection of information unless it displays a currently valid OMB control number. The burden associated with this proposal has been submitted to OMB for review. The FAA will publish a notice in the Federal Register notifying the public of the approval numbers and expiration date.

#### **International Compatibility**

The FAA has reviewed corresponding International Civil Aviation Organization standards and recommended practices and Joint Aviation Authorities requirements and has identified no differences in these proposed amendments and the foreign regulations.

#### **Regulatory Evaluation Summary**

Executive Order 12866 (issued October 4, 1993) established the requirement that each agency shall assess both the costs and benefits of every regulation and propose or adjust a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. In response to this requirement, and in accordance with Department of Transportation policies and procedures, the FAA has estimated the anticipated benefits and costs of this rulemaking action. In addition to a summary of the regulatory evaluation, this section also contains a regulatory flexibility determination required by the 1980 Regulatory Flexibility Act, an international trade impact assessment, and an unfunded mandates determination. (A detailed discussion of costs and benefits is contained in the full evaluation in the docket for this rule.)

In conducting these analyses, the FAA has determined that this proposed rule would generate cost-savings that would exceed any costs, and is not "significant" as defined

under section 3(f) of Executive Order 12866 and Department of Transportation's (DOT) policies and procedures (44 FR 11034, February 26, 1979). In addition, under the Regulatory Flexibility Determination, the FAA certifies that this proposal would not have a significant impact on a substantial number of small entities. Furthermore, this proposal would not impose restraints on international trade. Finally, the FAA has determined that the proposal would not impose a federal mandate on state, local, or tribal governments, or the private sector of \$100 million per year. These analyses, available in the docket, are summarized below.

#### Cost of Compliance

The FAA has estimated the expected costs and benefits of this regulatory proposal. In this analysis, the FAA estimated costs for a 10-year period, from 1999 through 2008. The present value of this stream was calculated using a discount factor of 7 percent as required by the OMB. All costs in this analysis are in 1996 dollars.

While 17 of the proposed sections would increase costs, the changes in 15 of them would modify existing reporting requirements or add additional reporting requirements for information that has not been collected before or had been collected through voluntary reporting. Accordingly, because there is little or no historical data on the proposed data

collection and reporting requirements, the FAA does not know how many extra reports these new requirements would generate. For these proposed sections that lack historical data, the FAA believes that there would be few new reports and that the overall burden would be minimal. However, to provide the public with an estimation of the potential total impact of these sections, the FAA assumed that each of these proposed sections could increase the total number of SDR's processed each year by 1 percent. Over 10 years, these costs sum to \$674,300 (net present value, \$473,600). The FAA calls for comments on these assumptions, specifically what the extra number of reports and the total impact would be in each of these cases.

Proposed §§ 121.703(e) and 121.704(d) would require 1 year after the effective date of the rule, that part 121 certificate holders submit reports in an electronic form. Electronic reporting would necessitate having a computer and a modem. The software needed to interface with the SDRS runs only on IBM-compatible systems; almost all part 121 certificate holders have such systems.

The costs associated with this section would be for those certificate holders who use non-IBM compatible computers. It would be necessary for them to convert to an IBM-compatible system and for a programmer to install the requisite software. In addition, the software necessary to

interface with the SDRS would need to be installed at all locations; the FAA would provide this software at no charge. Total first year costs sum to approximately \$7,700 (net present value, \$7,200).

Proposed sections §§ 121.703(g), 121.704(f), 125.409(g), 125.410(f), 135.415(g), and 135.416(f) would permit part 121, 125, and 135 certificate holders to authorize a repair station to submit an SDR on their behalf. Proposed §§ 145.63(e) and 145.79(f) would require that the repair stations provide a copy of the report submitted by the repair station to the part 121, 125, or 135 certificate holder on whose behalf the report was submitted. These proposed sections would result in increased costs for the repair stations. However, these proposed sections would allow for cost savings by eliminating duplicate reports; repair stations would submit the report for input into the SDRS currently submitted by both repair stations and air carriers.

The elimination of the air carrier operator's duplicate report would not diminish safety. The SDR system is used to spot equipment malfunction trends and to get an overview of airplane mechanical malfunctions by fleet type; they are not intended to give an operational view of what is wrong with an operator's individual airplane. Based on the existing regulations, before an airplane can be put back into

service, the air carrier will need to be aware of what was wrong and what corrective actions were taken. Alleviating the air carrier operator of the responsibility of submitting an SDR in this case does not lessen the information the air carrier would have about their aircraft.

There were 2,311 SDR's from repair stations entered into the SDR data base that also were submitted from air carriers in 1996. Each report would need to be sent from the repair station to the air carrier. The FAA assumes in this analysis that all reports are photostated and mailed. Over 10 years, the costs of these reports would be \$55,900 (net present value, \$39,300).

Total quantifiable costs, over 10 years, sum to \$738,000 (net present value, \$520,100).

Proposed sections §§ 121.703(d), 125.409(d), and 135.415(d) may reduce the PMI's workload. Currently, all reports go from the certificate holder to the Flight Service District Office (FSDO) where the PMI spends time reviewing the SDR before forwarding it to the SDRS in Oklahoma City. The proposal would require certificate holders and operators to submit these reports directly to Oklahoma City, thus possibly reducing the PMI's workload. The certificate holder or operator would be required to make the SDR data available to the FSDO for examination. Hence, while the PMI could still remain informed, he or she may not



have to spend as much time inspecting each report and would not have to forward the material. Over 10 years, this cost savings would be \$1.12 million (net present value, \$786,000).

Proposed §§ 121.703(e)(13), 121.704(d)(9), 125.409(e)(13), 125.410(d)(9), 135.415(e)(13), and 135.416(d)(9) would add a requirement that an SDR include a unique control number for each occurrence. This proposal would yield cost savings that would come from both the reduction in the number of duplicate reports for the same occurrence in the SDR data base and from the more simplified, methodical method for the FAA and industry to reference an SDR. Traditionally, when a supplemental report was submitted to the SDRS, it was entered as if it were a separate report, thus making it difficult to link to the original report. Using a unique identification number for each occurrence would reduce the total number of reports within the SDRS. The potential cost savings would be based on the reduction in the amount of time spent to find and link these reports within the SDRS. Over 10 years, the cost savings would be \$143,800 (net present value, \$101,000). The actual cost savings would almost certainly be lower because some certificate holders already are using a control number.

Proposed sections §§ 121.703(g), 125.409(g), and 135.415(g) would reduce dual reporting. When a repair station identifies a failure, malfunction, or defect, this information currently is being reported by both the repair station and the certificate holder or operator. Therefore, information about the same problem may be reported twice to the FAA. The proposed revision is intended to eliminate these duplicate reports. The proposed rule would require that the part 121, 125, or 135 certificate holder or operator receive a copy of the report submitted by the repair station (these costs were covered above).

Cost savings would accrue, for each repair, because one less report would need to be processed. In 1996, 2,311 repair station SDR's were enter into the SDR data base, so this analysis will assume that this number of reports would not have to be processed. Over 10 years, this cost reduction would be \$227,300 (net present value, \$194,800).

Total cost savings over 10 years sum to \$1.54 million (net present value, \$1.08 million). Net cost savings would be \$802,200 (net present value, \$561,600); these savings could be lower (1) if any of the proposed sections the FAA is calling for comment on have higher costs than those assumed; and (2) if the total cost savings from using a

unique control number is less (but the FAA does not have the data to determine how much less it may be).

#### Analysis of Benefits

These proposals would help to eliminate the number of duplicate reports that have been entered into this system. In addition, the increased interval for submitting reports should reduce the number of supplemental reports filed. A more efficient system would preserve and improve the integrity of the data base and allow for better and more complete analyses. Additional specific benefits of these proposals include standardizing reporting procedures among air carriers.

In addition to the above, the proposed regulations would enhance air carrier safety by collecting additional and more timely data that identify mechanical failures, malfunctions, and defects that may be a serious hazard to the operation of an aircraft. The information collected could be used to develop and implement corrective actions to help prevent future occurrences of these failures, malfunctions, and defects.

As noted above, the SDR system is used to identify trends and to provide an overview of product service data. Identifying these trends could help to catch problems early, which could allow AD's to be based on better information. In addition, an SDR will give an operator the ability to use

trend information (and knowledge of potential problems) to better plan its maintenance scheduling, a major benefit for airplane operators. In addition, the FAA believes that because of the improved SDR information resulting from these proposed regulations, additional information and equipment malfunction trends could be identified that would lead, over time, to safer airplanes.

#### Comparison of Costs and Benefits

This proposed rule would result in cost savings. Duplicate reports, as well as duplicate entries in the SDRS, would be reduced. The only costs would include software and hardware costs for the part 121 air carriers and copies of reports from repair stations to certificate holders who would no longer need to file SDR's. These proposed changes are expected to generate net cost savings over 10 years of \$802,200 (net present value, \$561,600).

In addition to eliminating the number of duplicate reports that have been entered into this system, the proposed regulations would enhance air carrier safety by collecting additional and more timely data that identify mechanical failures, malfunctions, and defects that may be a serious hazard to the operation of an aircraft. This data could be used to identify trends that could help to catch problems early and to better plan its maintenance

scheduling. All of this could lead, over time, to safer airplanes.

Based on the proposed rule's cost savings and benefits, the FAA finds this proposed rule to be cost beneficial.

## **Initial Regulatory Flexibility Determination**

The Regulatory Flexibility Act of 1980 establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation." To achieve that principle, the Act requires agencies to solicit and consider flexible regulatory proposals and to explain the rational for their actions. The Act covers a wide range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it will, the agency must prepare a regulatory flexibility analysis (RFA) as described in the Act.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the Act provides that the head of the agency may so certify and an RFA is not required. The

certification must include a statement providing the factual basis for this determination, and the reasoning should be clear.

For this proposed rule, the small entity group is considered to be part 121, 125, and 135 air carriers (Standard Industrial Classification (SIC) Code 4512) and part 145 repair stations (SIC Codes 4581, 7622, 7629, and 7699). The FAA has identified a total of 98 part 121 air carriers, 2,118 part 125 and part 135 air carriers, and 2,790 part 145 repair stations that would be considered small entities.

These proposed regulations would cost all air carriers \$396,400 (net present value, \$280,200) and repair stations \$64,300 (net present value, \$45,100) over the next 10 years. On average, it would cost each air carrier \$15 per year and each repair station \$1 per year.

The FAA conducted the required review of this proposal and determined that it would not have a significant economic impact on a substantial number of small entities. Accordingly, pursuant to the Regulatory Flexibility Act, 5 U.S.C. 605(b), the Federal Aviation Administration certifies that this rule will not have a significant impact on a substantial number of small entities. The FAA specifically requests comments from small entities on this certification.

### **International Trade Impact Analysis**

In accordance with the OMB memorandum dated March 1983, Federal agencies engaged in rulemaking activities are required to assess the effects of regulatory changes on international trade. There would be no impact on international trade for the domestic certificate holders and operators affected by this proposed rule. In addition, the impact on both domestic and foreign repair stations would be the same, so there would be no cost advantage to using either. Accordingly, there would be no impact on international trade.

### **Federalism Implications**

The regulations proposed herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

### **Unfunded Mandates Reform Act**

Title II of the Unfunded Mandates Reform Act of 1995, enacted as Public Law 104-4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a



written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any 1 year.

Section 204(a) of the Act, 2 U.S.C. 1534(a), requires the Federal agency to develop an effective process to permit timely input by elected officers (or their designees) of State, local, and tribal governments on a proposed "significant intergovernmental mandate." A "significant intergovernmental mandate" under the Act is any provision in a Federal agency regulation that will impose an enforceable duty upon State, local, and tribal governments, in the aggregate, of \$100 million (adjusted annually for inflation) in any 1 year. Section 203 of the Act, 2 U.S.C. 1533, which supplements section 204(a), provides that before establishing any regulatory requirements that might significantly or uniquely affect small governments, the agency shall have developed a plan that, among other things, provides for notice to potentially affected small governments, if any, and for a meaningful and timely opportunity to provide input in the development of regulatory proposals.

This proposed rule does not contain any Federal intergovernmental mandates or private sector mandates.

## **List of Subjects**

### 14 CFR Part 121

Air carriers, Aircraft, Aviation safety, Reporting and recordkeeping requirements, Safety, Transportation.

### 14 CFR Part 125

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

### 14 CFR Part 135

Air taxis, Aircraft, Aviation safety, Reporting and recordkeeping requirements.

### 14 CFR Part 145

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

## **The Proposed Amendment**

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR parts 121, 125, 135, and 145 as follows:

### **PART 121—OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL OPERATIONS**

1. The authority citation for part 121 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 40119, 44101, 44701-44702, 44705, 44709-44711, 44713, 44716-44717, 44722, 44901, 44903-44904, 44912, 46105.

2. Amend § 121.703 by revising the section heading and paragraphs (a), (c), (d), (e), and (f); redesignating paragraph (g) as paragraph (h); revising paragraph (h) and redesignating it as paragraph (i); and adding a new paragraph (g) to read as follows:

**§ 121.703 Service difficulty reports (operational).**

(a) Each certificate holder shall report the occurrence or detection of each failure, malfunction, or defect concerning—

(1) Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;

(2) Any false warning of fire or smoke;

(3) An engine exhaust system that causes damage to the engine, adjacent structure, equipment, or components;

(4) An aircraft component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes;

(5) Any engine flameout or shutdown during flight or ground operations;

(6) A propeller feathering system or ability of the system to control overspeed;

(7) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage;

(8) A landing gear extension or retraction, or the opening or closing of landing gear doors during flight;

(9) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground;

(10) Any aircraft component or system that results in a rejected takeoff after initiation of the takeoff roll or the taking of emergency actions, as defined by the Aircraft Flight Manual or Pilot's Operating Handbook;

(11) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment found to be defective or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments; and

(12) Autothrottle, autoflight, or flight control systems or components of these systems.

\* \* \* \* \*

(c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft, system, component, or powerplant that occurs or is detected at any time if that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft.

(d) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to a centralized collection point as specified by the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next work day. Each certificate holder also shall make the report data available for 30 days for examination by the certificate-holding district office in a form and manner acceptable to the Administrator.

(e) The certificate holder shall submit the reports required by this section in an electronic or other form acceptable to the Administrator. After [1 year from the effective date of the rule], the certificate holder shall submit the reports required by this section in an electronic form acceptable to the Administrator. The reports shall include the following information:

- (1) The manufacturer, model, and serial number of the aircraft, engine, or propeller;
- (2) The registration number of the aircraft;
- (3) The operator designator;

- (4) The date on which the failure, malfunction, or defect was discovered;
  - (5) The stage of flight or ground operation during which the failure, malfunction, or defect was discovered;
  - (6) The nature of the failure, malfunction, or defect;
  - (7) The applicable Joint Aircraft System/Component Code;
  - (8) The total cycles, if applicable, and total time of the aircraft, aircraft engine, propeller, or component;
  - (9) The manufacturer, manufacturer part number, part name, serial number, and location of the component that failed, malfunctioned, or was defective, if applicable;
  - (10) The manufacturer, manufacturer part number, part name, serial number, and location of the part that failed, malfunctioned, or was defective, if applicable;
  - (11) The precautionary or emergency action taken;
  - (12) Other information necessary for a more complete analysis of the cause of the failure, malfunction, or defect, including available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and
  - (13) A unique control number for the occurrence, in a form acceptable to the Administrator.
- (f) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type

Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a Type Certificate holder, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by that certificate holder under § 21.3 of this chapter or under the accident reporting provisions of 49 CFR part 830.

(g) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by a part 121 certificate holder. However, the part 121 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 121 certificate holder shall receive a copy of each report submitted by the repair station.

(h) No person may withhold a report required by this section although all information required by this section is not available.

(i) When a certificate holder gets additional information concerning a report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

3. Add § 121.704 to read as follows:

**§ 121.704 Service difficulty reports (structural).**

(a) Each certificate holder shall report the occurrence or detection of each failure or defect related to—

(1) Corrosion, cracks, or disbonding that requires replacement of the affected part;

(2) Corrosion, cracks, or disbonding that requires rework or blendout because the corrosion, cracks, or disbonding exceeds the manufacturer's established allowable damage limits;

(3) Cracks, fractures, or disbonding in a composite structure that the equipment manufacturer has designated as a primary structure or a principal structural element; or

(4) Failures or defects repaired in accordance with approved data not contained in the manufacturer's maintenance manual.

(b) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure or defect in aircraft structure that occurs or is detected at any time if that failure or defect has endangered or may endanger the safe operation of an aircraft.



(c) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to a centralized collection point as specified by the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next work day. Each certificate holder also shall make the report data available for 30 days for examination by the certificate-holding district office in a form and manner acceptable to the Administrator.

(d) The certificate holder shall submit the reports required by this section in an electronic or other form acceptable to the Administrator. After [1 year from the effective date of the rule], the certificate holder shall submit the reports required by this section in an electronic form acceptable to the Administrator. The reports shall include the following information:

- (1) The manufacturer, model, serial number, and registration number of the aircraft;
- (2) The operator designator;
- (3) The date on which the failure or defect was discovered;

(4) The stage of ground operation during which the failure or defect was discovered;

(5) The part name, part condition, and location of the failure or defect;

(6) The applicable Joint Aircraft System/Component Code;

(7) The total cycles, if applicable, and total time of the aircraft;

(8) Other information necessary for a more complete analysis of the cause of the failure or defect, including corrosion classification, if applicable, or crack length and available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and

(9) A unique control number for the occurrence, in a form acceptable to the Administrator.

(e) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a Type Certificate holder, need not report a failure or defect under this section if the failure or defect has been reported by that certificate holder under § 21.3 of this chapter or under the accident reporting provisions of 49 CFR part 830.

(f) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by the part 121 certificate holder. However, the part 121 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 121 certificate holder shall receive a copy of each report submitted by the repair station.

(g) No person may withhold a report required by this section although all information required by this section is not available.

(h) When a certificate holder gets additional information concerning a report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

4. Revise § 121.705 to read as follows:

**§ 121.705 Mechanical interruption summary report.**

Each certificate holder shall submit to the Administrator, before the end of the 10th day of the following month, a summary report for the previous month of each interruption to a flight, unscheduled change of aircraft en route, unscheduled stop or diversion from a route, or unscheduled engine removal caused by known or

suspected mechanical difficulties or malfunctions that are not required to be reported under § 121.703 or § 121.704 of this part.

**PART 125-CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE**

5. The authority citation for part 125 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701-44702, 44705, 44710-44711, 44713, 44716-44717, 44722.

6. Revise § 125.409 to read as follows:

**§ 125.409 Service difficulty reports (operational).**

(a) Each certificate holder shall report the occurrence or detection of each failure, malfunction, or defect concerning—

(1) Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;

(2) Any false warning of fire or smoke;

(3) An engine exhaust system that causes damage to the engine, adjacent structure, equipment, or components;

(4) An aircraft component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes;

(5) Any engine flameout or shutdown during flight or ground operations;

(6) A propeller feathering system or ability of the system to control overspeed;

(7) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage;

(8) A landing gear extension or retraction, or the opening or closing of landing gear doors during flight;

(9) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground;

(10) Any aircraft component or system that results in a rejected takeoff after initiation of the takeoff roll or the taking of emergency actions, as defined by the Aircraft Flight Manual or Pilot's Operating Handbook;

(11) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment found to be defective or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments; and

(12) Autothrottle, autoflight, or flight control systems or components of these systems.

(b) For the purposes of this section, during flight means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

(c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft, system, component, or powerplant that occurs or is detected at any time if that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft.

(d) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to a centralized collection point as specified by the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next work day. For aircraft operating in areas where mail is not collected, reports may be submitted within 24 hours after the aircraft returns to a point where the mail is collected. Each certificate holder also shall make the report data available for 30 days for examination by the certificate-holding district office in a form and manner acceptable to the Administrator.

(e) The certificate holder shall submit the reports required by this section in an electronic or other form

acceptable to the Administrator. The reports shall include the following information:

(1) The manufacturer, model, and serial number of the aircraft, engine, or propeller;

(2) The registration number of the aircraft;

(3) The operator designator;

(4) The date on which the failure, malfunction, or defect was discovered;

(5) The stage of flight or ground operation during which the failure, malfunction, or defect was discovered;

(6) The nature of the failure, malfunction, or defect;

(7) The applicable Joint Aircraft System/Component Code;

(8) The total cycles, if applicable, and total time of the aircraft, aircraft engine, propeller, or component;

(9) The manufacturer, manufacturer part number, part name, serial number, and location of the component that failed, malfunctioned, or was defective, if applicable;

(10) The manufacturer, manufacturer part number, part name, serial number, and location of the part that failed, malfunctioned, or was defective, if applicable;

(11) The precautionary or emergency action taken;

(12) Other information necessary for a more complete analysis of the cause of the failure, malfunction, or defect, including available information pertaining to type

designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and

(13) A unique control number for the occurrence, in a form acceptable to the Administrator.

(f) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a Type Certificate holder, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by that certificate holder under § 21.3 of this chapter or under the accident reporting provisions of 49 CFR part 830.

(g) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by a part 125 certificate holder. However, the part 125 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 125 certificate holder shall receive a copy of each report submitted by the repair station.

(h) No person may withhold a report required by this section although all information required by this section is not available.



(i) When a certificate holder gets additional information concerning a report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

7. Add § 125.410 to read as follows:

**§ 125.410 Service difficulty reports (structural).**

(a) Each certificate holder shall report the occurrence or detection of each failure or defect related to—

(1) Corrosion, cracks, or disbonding that requires replacement of the affected part;

(2) Corrosion, cracks, or disbonding that requires rework or blendout because the corrosion, cracks, or disbonding exceeds the manufacturer's established allowable damage limits;

(3) Cracks, fractures, or disbonding in a composite structure that the equipment manufacturer has designated as a primary structure or a principal structural element; or

(4) Failures or defects repaired in accordance with approved data not contained in the manufacturer's maintenance manual.

(b) In addition to the reports required by paragraph (a) of this section, each certificate holder shall

report any other failure or defect in aircraft structure that occurs or is detected at any time if that failure or defect has endangered or may endanger the safe operation of an aircraft.

(c) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to a centralized collection point as specified by the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next work day. For aircraft operating in areas where mail is not collected, reports may be submitted within 24 hours after the aircraft returns to a point where the mail is collected. Each certificate holder also shall make the report data available for 30 days for examination by the certificate-holding district office in a form and manner acceptable to the Administrator.

(d) The certificate holder shall submit the reports required by this section in an electronic or other form acceptable to the Administrator. The reports shall include the following information:

- (1) The manufacturer, model, serial number, and registration number of the aircraft;
  - (2) The operator designator;
  - (3) The date on which the failure or defect was discovered;
  - (4) The stage of ground operation during which the failure or defect was discovered;
  - (5) The part name, part condition, and location of the failure or defect;
  - (6) The applicable Joint Aircraft System/Component Code;
  - (7) The total cycles, if applicable, and total time of the aircraft;
  - (8) Other information necessary for a more complete analysis of the cause of the failure or defect, including corrosion classification, if applicable, or crack length and available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and
  - (9) A unique control number for the occurrence, in a form acceptable to the Administrator.
- (e) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a

Type Certificate holder, need not report a failure or defect under this section if the failure or defect has been reported by that certificate holder under § 21.3 of this chapter or under the accident reporting provisions of 49 CFR part 830.

(f) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by the part 125 certificate holder. However, the part 125 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 125 certificate holder shall receive a copy of each report submitted by the repair station.

(g) No person may withhold a report required by this section although all information required by this section is not available.

(h) When a certificate holder gets additional information concerning a report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

**PART 135—OPERATING REQUIREMENTS: COMMUTER AND ON-DEMAND OPERATIONS**

8. The authority citation for part 135 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 44113, 44701-44702, 44705, 44709, 44711-44713, 44715-44717, 44722.

9. Amend § 135.415 by revising the section heading and paragraphs (a), (c), (d), (e), and (f); redesignating paragraph (g) as paragraph (h); revising paragraph (h) and redesignating it as paragraph (i); and adding a new paragraph (g) to read as follows:

**§ 135.415 Service difficulty reports (operational).**

(a) Each certificate holder shall report the occurrence or detection of each failure, malfunction, or defect concerning—

(1) Any fire and, when monitored by a related fire-warning system, whether the fire-warning system functioned properly;

(2) Any false warning of fire or smoke;

(3) An engine exhaust system that causes damage to the engine, adjacent structure, equipment, or components;

(4) An aircraft component that causes the accumulation or circulation of smoke, vapor, or toxic or noxious fumes;

(5) Any engine flameout or shutdown during flight or ground operations;

(6) A propeller feathering system or ability of the system to control overspeed;

(7) A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage;

(8) A landing gear extension or retraction, or the opening or closing of landing gear doors during flight;

(9) Any brake system component that results in any detectable loss of brake actuating force when the aircraft is in motion on the ground;

(10) Any aircraft component or system that results in a rejected takeoff after initiation of the takeoff roll or the taking of emergency action, as defined by the Aircraft Flight Manual or Pilot's Operating Handbook;

(11) Any emergency evacuation system or component including any exit door, passenger emergency evacuation lighting system, or evacuation equipment found to be defective, or that fails to perform the intended function during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments; and

(12) Autothrottle, autoflight, or flight control systems or components of these systems.

\* \* \* \* \*

(c) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure, malfunction, or defect in an aircraft, system, component, or powerplant that occurs or is detected at any time if that failure, malfunction, or defect

has endangered or may endanger the safe operation of an aircraft.

(d) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to a centralized collection point as specified by the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next work day. For aircraft operating in areas where mail is not collected, reports may be submitted within 24 hours after the aircraft returns to a point where the mail is collected. Each certificate holder also shall make the report data available for 30 days for examination by the certificate-holding district office in a form and manner acceptable to the Administrator.

(e) The certificate holder shall submit the reports required by this section in an electronic or other form acceptable to the Administrator. The reports shall include the following information:

(1) The manufacturer, model, and serial number of the aircraft, engine, or propeller;

(2) The registration number of the aircraft;

- (3) The operator designator;
- (4) The date on which the failure, malfunction, or defect was discovered;
- (5) The stage of flight or ground operation during which the failure, malfunction, or defect was discovered;
- (6) The nature of the failure, malfunction, or defect;
- (7) The applicable Joint Aircraft System/Component Code;
- (8) The total cycles, if applicable, and total time of the aircraft, aircraft engine, propeller, or component;
- (9) The manufacturer, manufacturer part number, part name, serial number, and location of the component that failed, malfunctioned, or was defective, if applicable;
- (10) The manufacturer, manufacturer part number, part name, serial number, and location of the part that failed, malfunctioned, or was defective, if applicable;
- (11) The precautionary or emergency action taken;
- (12) Other information necessary for more complete analysis of the cause of the failure, malfunction, or defect, including available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and
- (13) A unique control number for the occurrence, in a form acceptable to the Administrator.



(f) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a Type Certificate holder, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by that certificate holder under § 21.3 of this chapter or under the accident reporting provisions of 49 CFR part 830.

(g) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by a part 135 certificate holder. However, the part 135 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 135 certificate holder shall receive a copy of each report submitted by the repair station.

(h) No person may withhold a report required by this section although all information required by this section is not available.

(i) When a certificate holder gets additional information concerning a report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

10. Add § 135.416 to read as follows:

**§ 135.416 Service difficulty reports (structural).**

(a) Each certificate holder shall report the occurrence or detection of each failure or defect related to—

(1) Corrosion, cracks, or disbonding that requires replacement of the affected part;

(2) Corrosion, cracks, or disbonding that requires rework or blendout because the corrosion, cracks, or disbonding exceeds the manufacturer's established allowable damage limits;

(3) Cracks, fractures, or disbonding in a composite structure that the equipment manufacturer has designated as a primary structure or a principal structural element; or

(4) Failures or defects repaired in accordance with approved data not contained in the manufacturer's maintenance manual.

(b) In addition to the reports required by paragraph (a) of this section, each certificate holder shall report any other failure or defect in aircraft structure that occurs or is detected at any time if that failure or defect has endangered or may endanger the safe operation of an aircraft.

(c) Each certificate holder shall submit each report required by this section, covering each 24-hour period beginning at 0900 local time of each day and ending at 0900 local time on the next day, to a centralized collection point as specified by the Administrator. Each report of occurrences during a 24-hour period shall be submitted to the FAA within the next 96 hours. However, a report due on Saturday or Sunday may be submitted on the following Monday, and a report due on a holiday may be submitted on the next work day. For aircraft operating in areas where mail is not collected, reports may be submitted within 24 hours after the aircraft returns to a point where the mail is collected. Each certificate holder also shall make the report data available for 30 days for examination by the certificate-holding district office in a form and manner acceptable to the Administrator.

(d) The certificate holder shall submit the reports required by this section in an electronic or other form acceptable to the Administrator. The reports shall include the following information:

- (1) The manufacturer, model, serial number, and registration number of the aircraft;
- (2) The operator designator;
- (3) The date on which the failure or defect was discovered;

(4) The stage of ground operation during which the failure or defect was discovered;

(5) The part name, part condition, and location of the failure or defect;

(6) The applicable Joint Aircraft System/Component Code;

(7) The total cycles, if applicable, and total time of the aircraft;

(8) Other information necessary for a more complete analysis of the cause of the failure or defect, including corrosion classification, if applicable, or crack length and available information pertaining to type designation of the major component and the time since the last maintenance overhaul, repair, or inspection; and

(9) A unique control number for the occurrence, in a form acceptable to the Administrator.

(e) A certificate holder that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order authorization, or that is a licensee of a Type Certificate holder, need not report a failure or defect under this section if the failure or defect has been reported by that certificate holder under § 21.3 of this chapter or under the accident reporting provisions of 49 CFR part 830.

(f) A report required by this section may be submitted by a certificated repair station when the reporting task has been assigned to that repair station by the part 135 certificate holder. However, the part 135 certificate holder remains primarily responsible for ensuring compliance with the provisions of this section. The part 135 certificate holder shall receive a copy of each report submitted by the repair station.

(g) No person may withhold a report required by this section although all information required by this section is not available.

(h) When a certificate holder gets additional information concerning a report required by this section, the certificate holder shall expeditiously submit that information as a supplement to the original report and use the unique control number from the original report.

11. Revise § 135.417 to read as follows:

**§ 135.417 Mechanical interruption summary report.**

Each certificate holder shall submit to the Administrator, before the end of the 10th day of the following month, a summary report for the previous month of each interruption to a flight, unscheduled change of aircraft en route, unscheduled stop or diversion from a route, or unscheduled engine removal caused by known or

suspected mechanical difficulties or malfunctions that are not required to be reported under § 135.415 or § 135.416 of this part.

**PART 145—REPAIR STATIONS**

12. The authority citation for part 145 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40113, 44701-44702, 44707, 44717.

13. Amend § 145.63 by revising paragraphs (a) and (c) and adding paragraphs (d) and (e) to read as follows:

**§ 145.63 Reports of defects or unairworthy conditions.**

(a) Each certificated domestic repair station shall, within 96 hours after it discovers any serious defect in, or other recurring unairworthy condition of, an aircraft, powerplant, or propeller, or any component of any of them, submit a report to a central collection point as specified by the Administrator. The report shall be made in a form and in a manner acceptable to the Administrator, describing the defect or unairworthy condition completely without withholding any pertinent information.

\* \* \* \* \*

(c) The holder of a domestic repair station certificate that also is the holder of a part 121, part 125, or part 135 certificate, a Type Certificate (including a

Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order Authorization, or that is the licensee of a Type Certificate holder, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under § 21.3, § 121.703, § 121.704, § 125.409, § 125.410, § 135.415, or § 135.416 of this chapter.

(d) A certificated domestic repair station may submit a Service Difficulty Report (operational or structural) for—

(1) A part 121 certificate holder under § 121.703(g) or § 121.704(f) provided that the report meets the requirements of §§ 121.703(d) and 121.703(e), or §§ 121.704(c) and 121.704(d) of this chapter, as appropriate;

(2) A part 125 certificate holder under § 125.409(g) or § 125.410(f) provided that the report meets the requirements of §§ 125.409(d) and 125.409(e), or §§ 125.410(c) and 125.410(d) of this chapter, as appropriate;

(3) A part 135 certificate holder under § 135.415(g) or § 135.416(f) provided that the report meets the requirements of §§ 135.415(d) and 135.415(e), or §§ 135.416(c) and 135.416(d) of this chapter, as appropriate.

(e) A certificated domestic repair station authorized to report a failure, malfunction, or defect under paragraph (d) of this section shall not report the same failure, malfunction, or defect under paragraph (a) of this section. A copy of the report submitted under paragraph (d) of this section shall be forwarded to the certificate holder.

14. Amend § 145.79 by revising paragraphs (c) and (d) and adding paragraphs (e) and (f) to read as follows:

**§ 145.79 Records and reports.**

\* \* \* \* \*

(c) Each certificated foreign repair station shall, within 96 hours after it discovers any serious defect in, or other recurring unairworthy condition of, any aircraft, powerplant, propeller, or any component of any of them, submit a report to a central collection point as specified by the Administrator. The report shall be made in a form and in a manner acceptable to the Administrator, describing the defect or unairworthy condition completely without withholding any pertinent information.

(d) The holder of a foreign repair station certificate that also is the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order Authorization or



that is the licensee of a Type Certificate holder need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under § 21.3 of this chapter.

(e) A certificated foreign repair station may submit a Service Difficulty Report (operational or structural) for—

(1) A part 121 certificate holder under § 121.703(g) or § 121.704(f) provided that the report meets the requirements of §§ 121.703(d) and 121.703(e) or §§ 121.704(c) and 121.704(d) of this chapter, as appropriate;

(2) A part 125 certificate holder under § 125.409(g) or § 125.410(f) provided that the report meets the requirements of §§ 125.409(d) and 125.409(e) or §§ 125.410(c) and 125.410(d) of this chapter, as appropriate;

(3) A part 135 certificate holder under § 135.415(g) or § 135.416(f) provided that the report meets the requirements of §§ 135.415(d) and 135.415(e) or §§ 135.416(c) and 135.416(d) of this chapter, as appropriate.

(f) A certificated foreign repair station authorized to report a failure, malfunction, or defect under paragraph (e) of this section shall not report the same failure, malfunction, or defect under paragraph (c) of this

section. A copy of the report submitted under paragraph (e) of this section shall be forwarded to the certificate holder.

Issued in Washington, D.C., on April 7, 1999.

Nicholas L. Lacey

Director, Flight Standards Service